

CLAIMS:

1. A system for verifying the composition of chemical substances, comprising:
 - an ultraviolet fluorescence detector;
 - a processor coupled to the ultraviolet fluorescence detector, the processor receiving spectral data from the ultraviolet fluorescence detector; and
 - a database including signature data for a plurality of predetermined chemical substances.
2. The system according to claim 1, wherein the ultraviolet fluorescence detector includes:
 - an excitation light source;
 - a sample receiving platform capable of receiving excitation light from said excitation light source;
 - an ultraviolet light detector for receiving induced fluorescent energy; and
 - an analysis module for matching said induced fluorescent ultraviolet energy against a previously determined signature spectrum.
3. The system according to claim 1, wherein the signature data includes data for at least one of a drug, a medication, a compounded medication, a compounded chemical formulation, a controlled substance, a narcotic, an illegal drug, an alcohol, a food product and a perfume.

4. A method for verifying the composition of at least one chemical substance, comprising the steps of:

measuring induced fluorescent energy of at least one chemical substance;

accessing a database of predetermined fluorescent signatures of chemical substances; and

comparing the measured induced fluorescence energy of said at least one chemical substance against the predetermined fluorescent signatures of said accessed database of chemical substances.

5. The method for verifying the composition of at least one chemical substance of claim 4, wherein said step of measuring induced fluorescent energy of said at least one chemical substance includes scanning said at least one chemical substance.

6. The method for verifying the composition of at least one chemical substance of claim 4, further comprising at least one of the steps of:

measuring said at least one chemical substance with a fluorescence inducing device;

measuring said at least one chemical substance when said chemical substance is being manufactured;

measuring said at least one chemical substance before said at least one chemical substance is packaged;

measuring said at least one chemical substance after said at least one chemical substance has been packaged;

measuring said at least one chemical substance when said at least one chemical substance is received at a distribution point;

measuring said at least one chemical substance when said at least one chemical substance is dispensed from a distribution point;

measuring said at least one chemical substance before said at least one chemical substance is administered;

measuring said at least one chemical substance before said at least one chemical substance is consumed; and

measuring said at least one chemical substance before said at least one chemical substance is disposed.

7. The method for verifying the composition of at least one chemical substance of claim 4, further comprising at least one of the steps of:

storing said measured induced fluorescent energy of said chemical;

updating a database;

updating a record;

updating a billing system;

updating a tracking system;

verifying the identity of said at least one chemical substance;

verifying the purity of said at least one chemical substance;

performing a quality control procedure;

analyzing raw materials prior to manufacturing said at least one chemical substance;

identifying the presence of an impurity;

identifying an impurity;

identifying a patient;

identifying a patient's medication profile;

comparing said at least one chemical substance against a patient's medication profile; and

identifying at least one unknown chemical substance.

8. The method for verifying the composition of at least one chemical substance of claim 4, further comprising at least one of the steps of:
 - alerting a user to an error;
 - alerting a user to a potential chemical interaction;
 - alerting a user to an impurity;
 - alerting a user to a unmatched fluorescent signature for said at least one chemical substance; and
 - alerting a user to an inaccurate concentration of said at least one chemical susbstance.
9. The method for verifying the composition of at least one chemical substance of claim 4, wherein said system is included in a quality control program.

10. The method for verifying the composition of at least one chemical substance of claim 4, wherein said system is included in a chemical substance dispensation protocol.
11. The method for verifying the composition of at least one chemical substance of claim 4, wherein said system is included in a chemical substance administration protocol.
12. The method for verifying the composition of at least one chemical substance of claim 4, wherein said system is included in a chemical substance disposal protocol.
13. The method for verifying the composition of at least one chemical substance of claim 4, wherein said system is included in a law enforcement protocol.
14. The method for verifying the composition of at least one chemical substance of claim 4, wherein said at least one chemical substance is at least one of a drug, a medication, a compounded medication, a compounded chemical formulation, a controlled substance, a narcotic, an illegal drug, an alcohol a food product and a perfume.